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What is claimed is:

1. An IEEE 1394 apparatus connected to a serial bus and being operable using power supplied from said serial bus or its own power supply, said apparatus comprising:
 - 5 voltage detection means for determining whether or not an output voltage of said power supply of its own is present and outputting the result of the determination;
 - code generation means for generating, based on the result of the determination of said voltage detection
 - 10 means, a code indicative of power class information which is information representing which one of the power supplied from said serial bus and said power supply of its own is used for operation of said IEEE 1394 apparatus;
 - 15 changing point detection means for detecting a change of the result of the determination output from said voltage detection means; and
 - a physical layer circuit for being reset with an output signal from said changing point detection means to
 - 20 vary the connection of said serial bus to perform bus resetting and for placing, when self-identification is performed in response to the occurrence of bus resetting, the code generated by said code generation means and indicative of the power class information into a Self-ID
 - 25 packet to be used for transmission of a result of the

point detection unit 8 does not reset PHY 5 in such a case as just described.

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Furthermore, while it is described that code generation unit 7 and changing point detection unit 8 in the first and second embodiments described above are formed from hardware, the present invention is not limited to the specific form, but quite similar operation can be achieved also by processing by software.

While preferred embodiments of the present invention have been described using specific terms, such description is for illustrative purposes only, and it is to be understood that changes and variations may be made without departing from the spirit or scope of the following claims.

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self-identification to a bus manager and outputting the Self-ID packet.

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2. An IEEE 1394 apparatus according to claim 1,
5 further comprising bus voltage detection means for determining whether or not an output voltage of power supplied from said serial bus is present and outputting a result of the determination, and wherein said changing point detection means detects a change of the result of
10 the determination of said voltage detection means only when said bus voltage detection means detects that the power supplied from said serial bus is higher than a predetermined voltage.
- 15 3. An IEEE 1394 apparatus connected to a serial bus and being operable using power supplied from said serial bus or its own power supply, said apparatus comprising:
voltage detection means for determining whether or not an output voltage of said power supply of its own is
20 present and outputting the result of the determination;
code generation means for generating, based on the result of the determination of said voltage detection means, a code indicative of power class information which is information representing which one of the power
25 supplied from said serial bus and said power supply of

its own is used for operation of said IEEE 1394 apparatus;

changing point detection means for detecting a change of the result of the determination output from
5 said voltage detection means; and

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a physical layer circuit for causing bus resetting to occur in response to an output signal from said changing point detection means and for placing, when self-identification is performed in response to the
10 occurrence of bus resetting, the code generated by said code generation means and indicative of the power class information into a Self-ID packet to be used for transmission of a result of the self-identification to a bus manager and outputting the Self-ID packet.

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4. An IEEE 1394 apparatus according to claim 3, further comprising bus voltage detection means for determining whether or not an output voltage of power supplied from said serial bus is present and outputting a
20 result of the determination, and wherein said changing point detection means detects a change of the result of the determination of said voltage detection means only when said bus voltage detection means detects that the power supplied from said serial bus is higher than a
25 predetermined voltage.

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